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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,720	10/18/2001	Moshe Rock	10638-025001	8722

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EXAMINER

BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary**Application No.**

09/982,720

Applicant(s)

ROCK ET AL.

Examiner

Jenna-Leigh Befumo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27, 30 and 37 is/are pending in the application.
- 4a) Of the above claim(s) 19-23, 26 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 24, 25, 30 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment submitted on July 16, 2003, has been entered. Claims 28, 29, 31 – 36, and 38 – 54 have been cancelled. Claims 30 and 37 have been amended. Therefore, the pending claims are 1 – 27, 30, and 37.

Election/Restrictions

2. Applicant's election without traverse of Group I and the species drawn to a stitch yarn comprising a heat sensitive material and an elastomeric material, claims 1 – 18, 24, 25, 30, and 37, in the Response filed, July 16, 2003, is acknowledged. Claim 30 is considered to be part of Group I, and was mistakenly left out of the Group in the previous Office Action. Claims 19 – 23, 26, and 27 are withdrawn from consideration as being drawn to a nonelected invention.

Drawings

3. The drawings are objected to because the prior art in Figure 3 looks no different than the invention shown in Figures 2, 12, 13, and 15 – 20. Further, while Figures 2, 12, 13, and 15 – 20 are suppose to be different embodiments of the present invention the drawings are the same. The Figures do not clearly show the invention or the different embodiments. Correction is required.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference signs not mentioned in the description: 32', in Figure 12 and 64 in Figure 18. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference signs in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "40" has been used to designate both entangled velour fabric in Figure 13 and a fabric article in Figure 16. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "34" has been used to designate both raised fibers in Figure 12 and loop yarn in Figure 15. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "16", "34", "72", and "82" have both been used to designate loop yarn. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "14", "32", "42", "52" and "62" have both been used to designate stitch yarn. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1 – 9, 16 – 18, 25, 30, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lombardi et al. (4,103,518) in view of Ploch et al (3,837,943).

Lombardi et al. discloses a knitting process which produces terry loops on the technical face and technical back by forming the loops in the base fabric while the base fabric is being knitted using a circular knitting machine (column 1, lines 10 – 19). The loops are formed from a loop yarn while the ground fabric is formed with a ground yarn, equivalent to Applicant's stitch yarn (column 6, line 67 – column 7, line 3). Lombardi et al. also discloses that it is known to shear the terry loop fabric to form a knitted velour fabric (column 1, lines 25 – 27). Lombardi et al. fails to teach using heat sensitive material to form the stitch yarn.

Ploch et al. is drawn to pile fabrics. Ploch et al. teaches using heat sensitive fibers as the stitch yarns to bond the pile yarns to the base and simultaneously shrink the thread improving the bonding on the fabric (column 1, line 65 – column 2, line 4). Ploch et al. discloses that the stitching thread comprises one or more filaments, including at least two fiber materials having different thermal characteristics (column 1, lines 54 – 57). The thread can be in the form of multiple filaments twisted together including two filaments of different thermal resistance (column 2, lines 13 – 15). Polypropylene filaments are used as one of the components in the stitching thread (column 2, lines 25 – 27). The stitching thread can also be in the form of a

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sheath-core fiber with polyethylene terephthalate, a type of polyester, and polyolefin (column 3, lines 51 – 60). The higher melting polymer, polyethylene terephthalate, is the core component, and the lower melting polymer, polyolefin, in the sheath component. In the examples, the stitching threads are produced to form a fine denier yarn having a linear density of as small as 5.6 tex. The threads can also include thermally shrinkable materials such as polyester to produce especially tight stitching seams (column 3, lines 60 – 63). Ploch et al. additionally, teaches using textured stitch yarns to produce a bulky seam which fills the puncture holes in the base fabric (column 3, lines 65 – 67). The fabric is subjected to a heat treatment to soften the lower melting component and bond the fibers together (column 1, lines 60 – 64). The fabric produced is stable and wear-resistant (column 1, lines 35 – 36). Thus, it would be obvious to one having ordinary skill in the art to use a thermally sensitive filaments as taught by Ploch et al. as the stitch yarn in the fabric taught by Lombardi et al. to help increase the bond between the ground fabric and the pile yarn and produce a stable and wear resistant compound fabric.

Although the limitations of permeability are not explicitly taught by Lombardi et al. or Ploch et al, it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. heat sensitive stitching threads made from hot melt material or thermally shrinkable material) and in the similar production steps (i.e., knitting the stitching thread in the ground fabric to produce a velour fabric) used to produce the double faced velour fabric. The burden is upon the Applicant to prove otherwise. Therefore, claims 1 – 4, 16 – 18, 25, and 37 are rejected.

Claims 5 – 9 are also rejected, since the limitations with respect to the application of the heat are method limitations which are only given weight based on the structure produced by the

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method and not based on the process limitation itself. Thus, regardless of how the heat is applied to the fabric, the heat sensitive material would respond by melting or shrinking to bond the pile yarns to the ground fabric. Thus, the structure of the final product is taught by Lombardi et al. in view of Ploch et al. as set forth above.

11. Claims 10 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lombardi et al. in view of Ploch et al. as applied to claim 1 above, and further in view of Richards et al. (5,557,950).

The features of Lombardi et al. and Ploch et al. have been set forth above. Lombardi et al. fails to teach using elastomeric material in the stitching threads. Richards et al. is drawn to knitted plush fabric. Richards et al. teaches including an elastic yarn in the knitted pile fabric to provide the fabric with stretchability (column 2, lines 3 – 7). The elastic fiber is specifically LYCRA®, a type of spandex yarn (column 3, lines 13 – 14). Thus, it would have been obvious to one having ordinary skill in the art to include a elastic fiber in the knitted pile fabric of Lombardi et al. to make the fabric more stretchable and thus more comfortable to the user. Further, it would have been obvious to one of ordinary skill in the art to combine the elastic yarn heat sensitive material together as a single yarn by various manners, since one of ordinary skill in the art would produce a stitch yarn which would evenly distribute the heat sensitive material and the elastic material throughout the pile fabric. Thus, the binder and elastic material would uniformly bind the pile yarns to the base fabric and the elastic material would give the fabric uniform stretch in various directions. Therefore, claims 10 – 13 are rejected.

12. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lombardi et al. in view of Ploch et al. as applied to claim 1 above, and further in view of Callaway.

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The features of Lombardi et al. and Ploch et al. have been set forth above. Lombardi et al fails to teach using a textured yarn. Callaway is drawn to a knitted pile fabric. Callaway discloses using texture polyester yarns in the knitted pile fabric. It would have been obvious to one having ordinary skill in the art to use a texture yarn in the knitted pile fabric. Texturing the yarn would add bulk to the pile and ground yarns making the fabric look and feel bulkier and softer. Thus, claim 24 is rejected.

13. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lombardi et al. in view of Ploch et al. and Richards et al., as applied to claim 10 above, and in further view of Wood et al. (US 2002/0124365 A1)

The features of Lombardi et al., Ploch et al., and Richards et al., have been set forth above. Lombardi et al. fails to teach entangling the pile yarns. Wood et al. is drawn to pile fabrics. Wood et al. teaches hydraulically treating the pile fabric to tease the pile yarns (page 1, paragraph 7). The fluid treatment can be performed over the entire fabric to produce a patterned fabric (page 1, paragraph 9). Therefore, it would have been obvious to one of ordinary skill in the art to hydraulically treat the surface, as taught by Wood et al., the plush fabric taught by Lombardi et al. to produce a patterned surface which is aesthetically pleasing to the consumer. Therefore, claims 14 and 15 are rejected.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jenna-Leigh Befumo
September 11, 2003



CHERYL A. JUSKA
PRIMARY EXAMINER